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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/769,275	01/26/2001	Thomas Thoroe Scherb	P20416	4360
7055	7590	10/22/2003	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			HALPERN, MARK	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/769,275	SCHERB ET AL.	
	Examiner	Art Unit	
	Mark Halpern	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-22,24-27 and 29-70 is/are pending in the application.
- 4a) Of the above claim(s) 48-67 and 70 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-22,24-27,29-47,68 and 69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1) Acknowledgement is made of RCE received 9/15/2003. Amendment received 6/4/2003, is under consideration. Applicants amend claims 1, 22, 24, 33, and cancel claim 23.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2) Claims 1-5, 7-12, 16, are rejected under 35 U.S.C. 102(b) as being anticipated by Kamps (WO 96/35018).

Claims 1-5, 7-12, 16: Kamps discloses an apparatus for producing a tissue paper web. The apparatus has an inner continuous dewatering belt 12 and an outer continuous dewatering belt 13; said belts are converging and are guided over a forming roll 15. A material feed device, a headbox 11, feeds a paper making stock suspension into a gap between the belts forming a fiber tissue web. Kamps discloses a suction element 30, which is a vacuum suction box (pg. 9, line 15), located adjacent and inside the inner belt on a side which is opposite the outer belt, said suction element being adjacent the area of separation of the belts. The belts separate immediately following the forming roll 15, with the web following the inner belt 12 over a pressure roll 41,

Art Unit: 1731

which then enters a nip formed by roll 41 and a drying roll drum 40. The web then adheres to heated drying drum, which is equipped with a drying hood (pg. 9, line 27 to pg. 10, line 5, and Figure 5). As shown in Figure 5 of Kamps, the outer belt 13 does not come in contact with the forming roll. As shown in Figures 1-3 of Kamps, the forming wires 2 have a fabric protrusion 3; the protrusion width is shown as dimension "LW" and represents a decorative line of a decorative pattern. The drainage of water is impeded through the protrusion relative to the remaining area of the forming fabric. The decorative pattern is being repeated, as shown for example in Figures 6-11, therefore the drainage of water is impeded wherever there is a decorative pattern throughout the forming fabric (pg.7, line 20 to pg. 8, line 20, pg. 10, line 8 to pg. 12, line 35, and Figures 1-3, 6-11). This reads on the claimed dewatering wires having zonally variable wire permeability.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3) Claims 13-15, 17-21, are rejected under 35 U.S.C. 103(a) as being obvious over Kamps in view of Erikson (WO 94/28242).

Claims 13-15, 17-21; Kamps is applied as above for claim 1, Kamps does not disclose a suction element of adjustable vacuum. Erikson discloses a suction hydrofoil

7, located in the area of separation, of adjustable vacuum (Erikson, Abstract, pgs. 6-8, and Figure 1). It would have been obvious to combine the teachings of Erikson and Kamps, because such a combination would assure a more effective means of dewatering the web for web transfer onto the inner belt in the design of Kamps. The suction forming roll of Erikson is positioned in front of the separation point in a web travel direction. The Erikson suction box 23 forces are used in conjunction with the suction forming roll depending on the process conditions and the product being formed.

4) Claims 22, 24-27, 29-47, 68, are rejected under 35 U.S.C. 103(a) as being obvious over Kamps in view of Erikson and further in view Kanitz (6,231,723).

Claims 22, 29, 68: Kamps discloses an apparatus for producing a tissue paper web. The apparatus has an inner continuous dewatering belt 12 and an outer continuous dewatering belt 13; said belts are converging and are guided over a forming roll 15. A material feed device, a headbox 11, feeds a paper making stock suspension into a gap between the belts forming a fiber tissue web. Kamps discloses a suction element 30, which is a vacuum suction box (pg. 9, line 15), located adjacent and inside the inner belt on a side which is opposite the outer belt, said suction element being adjacent the area of separation of the belts. The belts separate immediately following the forming roll 15, with the web following the inner belt 12 over a pressure roll 41, which then enters a nip formed by roll 41 and a drying roll drum 40. The web then adheres to heated drying drum, which is equipped with a drying hood (pg. 9, line 27 to pg. 10, line 5, and Figure 5). As shown in the Kamps Figure 5, the outer belt 13 does not come in contact with the forming roll. As shown in Figures 1-3 of Kamps, the

Art Unit: 1731

forming wires 2 have a fabric protrusion 3; the protrusion width is shown as dimension "LW" and represents a decorative line of a decorative pattern. The drainage of water is impeded through the protrusion relative to the remaining area of the forming fabric. The decorative pattern is being repeated, as shown for example in Figures 6-11, therefore the drainage of water is impeded wherever there is a decorative pattern throughout the forming fabric (pg.7, line 20 to pg. 8, line 20, pg. 10, line 8 to pg. 12, line 35, and Figures 1-3, 6-11). This reads on the claimed dewatering wires having zonally variable wire permeability. Kamps in view of Erikson does not disclose a conditioning device positioned adjacent the outer belt. Kanitz discloses a conditioning device 74, which is a water shower, positioned adjacent to an outer belt 28 (Kanitz, col. 3, line 10 to col. 4, line 49, and Figure 1). It would have been obvious to combine the teachings of Kanitz and Kamps in view of Erikson, because such a combination would provide improved maintenance on the forming belt in the Kamps design.

Claim 24; Kamps discloses a suction element adjacent the inner belt.

Claims 25-27; Kamps discloses tissue separation from the outer belt and adhering to the inner belt, said belts being continuous belts.

Claim 30; Kamps discloses that the outer belt does not come in contact with the forming roll.

Claims 31-32, 36; Erikson discloses a suction forming roll, said roll comprises a suction zone.

Art Unit: 1731

Claims 33-35, 37-43; Erikson discloses suction box 23 in area adjacent to the separation point; said box is inside an inner belt loop. Vacuum is adjusted when the box is used in conjunction with the suction forming roll. Erikson discloses hydrofoil 7.

Claim 47; Kamps discloses a crescent former (Kamps, pg. 9, line 29).

5) Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamps in view of Erikson, and further in view of Kanitz as applied to claim 68 above, and further in view of Tietz (DE 197 56 422). Kamps in view of Erikson and further in view of Kanitz disclose the invention except for the nip being formed between a cylinder and a shoe press roll. Tietz discloses the web being guided over an inner belt 5 to a nip 4 between a drying cylinder 3 and a shoe press roll 2, after which the web is removed from the inner belt 5 (Tietz, col. 4, lines 19-68, and Figure). It would have been obvious to combine the teachings of Tietz with the teachings of Kamps, Erikson and Kanitz, into the design of Kamps, because such a combination would provide an economic means of removing moisture from the web prior to drying.

Response to Amendment

6) Claim 1 rejection under 35 U.S.C. 102(b) as being anticipated by Odell (5,536,372), is withdrawn in view of amended claim.

Conclusion

7) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Halpern whose telephone number is 703-305-4522. The examiner can normally be reached on Mon-Fri, (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 703-308-1164. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9309.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone no. is 703-308-0651.

A handwritten signature in black ink, appearing to read 'M. Halpern', with a long horizontal flourish extending to the right.

Mark Halpern
Patent Examiner
Art Unit 1731